

**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- original
- divisional
- continuation
- continuation-in-part

**INVENTORSHIP IDENTIFICATION**

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION**

**"SELF CLEANING METHOD OF FORMING DEEP TRENCHES IN SILICON SUBSTRATES"**

**SPECIFICATION IDENTIFICATION**

The specification of which:

- is attached hereto
- was filed on 09/24/1999, under Serial No. 09/405,349, executed on even date herewith; or
- Express Mail No. \_\_\_\_\_ as Serial No. not yet known)
- and was amended on \_\_\_\_\_ (if applicable)
- was described and claimed in PCT International Application No. \_\_\_\_\_
- filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_.

**ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

**PRIORITY CLAIM (35 U.S.C. §119)**

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America or of any United States Provisional Application(s) listed below, and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

No such applications have been filed.

Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

<u>Country/PCT</u>	<u>Application No</u>	<u>Date Filed</u>	<u>Priority Claimed</u>
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:

Application No:

Filing date:

**PRIORITY CLAIM (35 U.S.C. §120)**

I hereby claim the benefit under Title 35, United States Code, §120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

No such applications have been filed

Such applications have been filed, as follows:

Status \_\_\_\_\_

Serial No.

Fil. Date

Patented

Pending

Abandoned

### POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Michael L. Sherrard	Registration No. 28,041
Peter J. Sgarbossa	Registration No. 25,610
Donald Verplancken	Registration No. 33,217
Lawrence Edelman	Registration No. 25,226
Michael B. Einschlag	Registration No. 29,301
Joseph Bach	Registration No. 37,771
Raymond Kam-On Kwong	Registration No. 37,165
James C. Wilson	Registration No. 35,412
Robert W. Mulcahy	Registration No. 25,436
WALTER BENJAMIN GLENN	Registration No. P-44,713

**Send correspondence to:** **Direct telephone calls to:**

Patent Counsel, MS/2061  
Legal Affairs Dept.  
Applied Materials, Inc.  
3050 Bowers Avenue  
Santa Clara, CA 95054.

WALTER BENJAMIN GLENN  
408-563-1389

### DECLARATION

*I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.*

Full name of sole or first inventor: **ANISUL KHAN**

Inventor's signature: Anisul Khan Date: 12/9/99

Residence: **SUNNYVALE, CA 94087**

Post Office Address: **1180 LOCHINVAR AVE, APT#53**

**SUNNYVALE, CA 94087**

**U.S.A.**

Country of Citizenship: **BANGLADESH**

Full name of second inventor: **AJAY KUMAR**

Inventor's signature: Ajay Date: 14/9/99

Residence: **SUNNYVALE, CA 94087**

Post Office Address: **510 KENILWORTH COURT**

**SUNNYVALE, CA 94087**

U.

Country of Citizenship: INDIA

Full name of third inventor:

JEFFREY D. CHINN

Inventor's signature:

Date:

15/9/99

Residence: FORSTER CITY, CA 94404  
Post Office Address: 605 ST. CROIX LANE  
FORSTER CITY, CA 94404  
U.S.A.

Country of Citizenship: USA

Full name of fourth inventor:

DRAGAN PODLESNIK

Inventor's signature:

Date:

12-9-99

Residence: PALO ALTO, CA 94304  
Post Office Address: 1736 OAK CREEK DRIVE  
PALO ALTO, CA 94304  
U.S.A.

Country of Citizenship: USA

(Declaration ends with this page)



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 29, 2000

PTAS

APPLIED MATERIALS, INC.  
ROBERT W. MULCAHY  
PATENT COUNSEL  
P.O. BOX 450-A  
SANTA CLARA, CA 95052

A standard linear barcode is positioned horizontally across the page, consisting of vertical black bars of varying widths on a white background.

\*101243784A\*

12/18/00

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF  
THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS  
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER  
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/14/1999

REEL/FRAME: 010479/0700  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
KHAN, ANISUL

DOC DATE: 12/09/1999

ASSIGNOR:  
KUMAR, AJAY

DOC DATE: 12/09/1999

ASSIGNOR:  
CHINN, JEFFREY D.

DOC DATE: 12/09/1999

ASSIGNOR:  
PODLESNIK, DRAGAN V

DOC DATE: 12/09/1999

ASSIGNEE:  
APPLIED MATERIALS, INC.  
P.O. BOX 450-A  
SANTA CLARA, CALIFORNIA 95052

FILING DATE: 09/24/1999  
ISSUE DATE:

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

mws

12.14.99

01-13-2000

U.S. Department of Commerce  
Patent And Trademark

or copy thereof.

101243784

## 1. Name of conveying party(ies):

Name of Inventors	Date
-------------------	------

Anisul Khan	12/9/99
Ajay Kumar	12/9/99
Jeffrey D Chinn	12/9/99
Dragan V Podlesnik	12/9/99

Additional name(s) of conveying party(ies) attached?

Yes  No 

## 3. Nature of conveyance:

X Assignment Merger

Security Agreement Change of Name

Other

## 2. Name and address of receiving party(ies):

Name: Applied Materials, Inc.

Internal Address: P.O. Box 450-A

Street Address:

City: Santa Clara State: CA Zip: 95052

Additional name(s) & address(es) attached? Yes  No 

Execution Date:

## 4. Application number(s) or registration number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_ (Date of Filing)

A. Patent Application No.(s) 09/405,349 Filed: 24SE1999

B. Patent No.(s)

Additional numbers attached? Yes  No 

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patent Counsel

Internal Address: APPLIED MATERIALS, INC.

01/1/2000 DCOATES 00000021 501074 09405349

01 FC:581 40.00 CH

Street Address: P.O. Box 450-A

City: Santa Clara State: CA Zip: 95052

## 6. Total number of applications and patents involved: /

7. Total fee (37 C.F.R. 3.41) \$ 40.00

 Enclosed Authorized to be charged to deposit account

50-1074

8. Deposit account number:  
50-1074

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

ROBERT W. MULCAHY Reg No. 25,436

Name of Person Signing

Signature

12/10/1999

Date

Total number of pages including cover sheet, attachments and document: 3

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents &amp; Trademarks, Box Assignments

Washington, D.C. 20231

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## ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

## Names and Addresses

## of Inventors:

1)	ANISUL KHAN 1180 LOCHINVAR AVE, APT#53 SUNNYVALE, CA 94087	2)	AJAY KUMAR 510 KENILWORTH COURT SUNNYVALE, CA 94087
3)	JEFFREY D. CHINN 605 ST. CROIX LANE <del>FORSTER</del> CITY, CA 94404	4)	DRAGAN PODLESNIK 1736 OAK CREEK DRIVE PALO ALTO, CA 94304

(hereinafter referred to as Assignors), have invented a certain invention entitled:

"SELF CLEANING METHOD OF FORMING DEEP TRENCHES IN SILICON SUBSTRATES"

for which application for Letters Patent in the United States was filed on 09/24/1999,  
under Serial No. 09/1905,349, executed on even date herewith.

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents; giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or

additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 12/9, 1999

Anisul Haque Khan  
ANISUL KHAN

2) 12/9, 1999

Ajay Kumar  
AJAY KUMAR

3) 12/9, 1999

Jeffrey D. Chinn  
JEFFREY D. CHINN

4) 12/9/99, 1999

Dragan Podlesnik  
DRAGAN PODLESNIK